

Cognitive psychology

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Insert 13th. April Cognitive Psychology Logic is mostly applied in intellectual activities; hence, it is associated with correct reasoning. Normally, logic directs humans on how they ought to reason in the right way. There are two types of logic, formal and informal logic, with formal logic concentrating on the formal systems of logic, which involves proofs. Therefore, formal logic guides humans towards critical thinking and differentiating between the right and wrong reasoning, thus making a choice on which to follow. On the other hand, informal logic involves the study of our daily life in terms of reasoning, thus involving critical thinking. However, according to Cline (N. d), human beings confuse logic with something that sounds reasonable. In addition, the human ability to reason is not perfect, hence for a person to survive everyday, he has to have the ability to distinguish between the truth and the falsehood. According to Wiegand (2000, pp 45), “ the main business of logic is to formulate statements about entitlements deducibility and deign methods of their justification.” Hence, logic can be described as a theory that establishes the truth or falsity of a statement, thus logic separates the truths from false, establishing the truth of a true matter and the falsehood of a false matter. Deductive reasoning implies that, if the premises are true and an appropriate rule of inference is used, the condition must be true, however, the deductive reasoning insists that regardless of the truthfulness of the premises, the result can be false. Human beings do not use logic to solve formal problems According to Isaac and Szymanik (2010, pp 2), human beings do not use the rules of logic even on minor tasks, hence portraying a weakness in humans’ reasoning. However, for logic to be applicable, one

must have effective knowledge regarding an issue. Kolodner and Reisbeck (1986, p. 2) notes, “ Our knowledge has to be organized in such a way so as to allow for the insertion of new information and indices and the correction and emendation of existing information.” Nevertheless, human cognition involves what humans know, how they know it and how they use their knowledge everyday. Knowledge engineering is a process that involves problem assessment, and implementing the knowledge into the problem. According to Wiegand (2000, pp 42), “ the solution of the problem of logic is motivated partly by the developments taking place in logic itself by philosophical considerations.” Therefore, how people think contributes to their reasoning and thinking can be described as a manipulation of mental representation, hence, human information processing system enables them to reason, solve problems, and make decisions in life. Moreover, according to Bernstein (2010 pp 291), formal reasoning seeks to find the valid conclusions, through the methods that achieve a correct result. In addition, in order to attain a valid conclusion, both truth and falsity should be considered, by following the rules of logic. Informal reasoning is used to assess the validity of a conclusion but it should consist of supportive evidence. However, in problem solving, identifying the problem, planning for effective measures, executing the strategies, and evaluating a solution are involved. Hence, according to Bernstein (2010 pp291), human beings encounter problems in solving a problem logically because they only consider and prefer one hypothesis other than several. Human being’s mindset can focus on one strategy even if the strategy is incorrect or ineffective, therefore, people should always try to respond to problems in a

way that maximizes the expected value of their decisions. According to Bermudez (2010, pp 101), human reasoning is influenced by logic principles and the theory of probability. Therefore, when human beings are trying to solve problems, they exploit the principles of logic, which are yes or no. However, most people use the probability theory, for instance, if that is the bank, then the bookshop is there. However, this does not necessarily mean that the bank is at that particular place; therefore, to prove the logic of the statement, it should state that 'that is the bank, the bookshop must be there.' Therefore, it is evident that human beings do not use logic to solve problems; they act according to their instinct and sometimes only consider one hypothesis as a solution for the problem. Conclusion To enable the use of logic when handling a problem, people should always be calm when approaching a certain problem. Being hasty and frustrated will only lead to lack of reasoning while solving a problem, hence, calmness is the key to solving issues. While approaching a problem, clarity on the issue should be obtained, thus enhancing the knowledge of the issue. Understanding the cause of a problem is also important since one will be able to set up a strategy to solve the problem. Therefore, it is essential for human beings to understand that logic is important in the everyday life, especially when tackling sensitive issues. References Bermudez, J. (2010). Cognitive Science: An Introduction to the Science of the Mind. Cambridge: Cambridge University Press Publisher. Bernstein, D. (2010). Essentials of Psychology. OH: Cengage Learning Publisher. Cline, A. (N. d). An article on Introduction to Logic & Arguments. What is Logic? What is an Argument? Retrieved from <http://atheism.about.com/od/logicalarguments/a/introduction.htm> Isaac, A.

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